



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/798,768      | 03/11/2004  | Clifford L. Smith    |                     | 6437             |

36347 7590 01/11/2006

LAW OFFICE OF CRAIG BOHN  
2134 BRANARD STREET  
HOUSTON, TX 77098

EXAMINER

TUROC, DAVID P

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1762

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/798,768

Applicant(s)

SMITH, CLIFFORD L.

Examiner

David Turocy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/13/2005 has been entered.

### ***Response to Amendment***

- 2. The applicant's amendments, filed 9/13/2005, have been fully considered and reviewed by the examiner. The amendments to the claims are to be entered because they do not raise new issues that need to be considered by the examiner. The examiner notes the amendment to claims and therefore the 35 USC 112 first paragraph rejection has been withdrawn. Claims 1-16 remain pending.

3. The declaration under 37 CFR 1.132 filed 9/13/2005 is insufficient to overcome the rejection of claims 1-16 based upon 35 USC 103(a) rejection as set forth in the last Office action because:

The examiner notes the statement of unexpected results and the data provided in support of said statement, however, such a showing is not commensurate in scope with the claims. The claimed feature is electroplated material comprising nickel with a

Art Unit: 1762

subsequent spray layer, and the declaration discloses unexpected results of a single species of the claimed genus, nickel chrome coating with HVOF topcoat. Therefore the declaration does not provide sufficient evidence of unexpected results over the entire scope of the claims.

The examiner notes the statement of commercial success, however, such statement is not commensurate in scope with the claims, where the claimed feature is electroplated material comprising nickel, and the declaration discloses commercial success of not claimed features of a nickel chrome coating (See MPEP 716.03(a)). In order to be commensurate in scope with the claim, the commercial success must be due to claimed features, rather than features not claimed. *Joy technologies Inc. Vs. Manbeck* 17 USPQ2d 1257, 1260. In addition, the declaration fails to provide proof of establishment of a nexus, i.e. factual evidence, between the claimed invention and commercial success. See MPEP 716.03.

The examiner notes the statement of long felt need, however, no objective evidence to support such a statement has been provided. The determination of long-felt need is based on (1) the recognition of a problem and (2) the inability to solve the problem. It is unclear what the "long felt need" is and how it is being solved by the claimed invention. It appears as though a species of the claimed invention provides an improvement of durability. However, the problem of serious failure does not appear to be solved but rather delayed a certain portion of time longer. The declaration does not provide objective evidence of the disclosed companies spending huge sums of money

- and resources to improve durability and therefore such a statement must be deemed
- merely speculation. See MPEP 716.04.

### ***Response to Arguments***

- 4. Applicant's arguments filed 9/13/2005 have been fully considered but they are
- not persuasive.

The applicant has argued against the Watson reference stating the reference does not provide severe use tools, i.e. load bearing tools and is directed to erosion wear, however, such an argument is not commensurate in scope with the claims because the claims only require a composite tool and tool is not adequately defined in the specification as only referring to "load bearing tools". Therefore, equipment as disclosed by Watson can be interpreted as tools and the claims as written do not require the coatings to protect from load-bearing wear rather than corrosive wear.

The applicant has argued against the Watson reference stating the reference teaches the underlying "noble metal", the principle teaching of Watson. However, the examiner respectfully disagrees. The principle teaching of Watson is the combination of the corrosive resistant underlying metal coating with the erosive resistant ceramic outer coating (Column 1, lines 37-48). Watson discloses a noble metal as gold silver, platinum, palladium and any other metal, which behave as noble metals and provide adequate corrosion protection, including zinc and tin (Column 2, lines 29-39).

- The applicant has argued against a reasonable expectation of success for the combination of Watson and Oshima. The examiner respectfully disagrees. As stated

Art Unit: 1762

above Watson discloses a noble metal as gold silver, platinum, palladium and any other metal, which behave as noble metals and provide adequate corrosion protection, including zinc and tin. Oshima teaches a zinc/nickel bath provides excellent corrosion protection for metal tools and therefore one of ordinary skill in the art would reasonably expect an undercoat of zinc/nickel to provide corrosive resistance in the invention as taught by Watson. Please note that the test of obviousness is not an express suggestion of the claimed invention in any or all references, but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them (*In re Rosselet*, 146 USPQ 183).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6073648 by Watson et al ("Watson") in view of US Patent 4889602 by Oshima et al ("Oshima") and further in view of the admitted state of the art as taught from the applicants' description.

Claims 1-3, Watson discloses coating equipment with an electroplated layer with corrosive resistant material (Column 1, lines 23-25, Column 2, lines 38-46, Figure 1). Watson discloses applying an electroplated layer having a thickness (Column 2, lines

Art Unit: 1762

58-63). After electroplating, Watson discloses applying an overcoat by spraying (Column 4, lines 61-64).

Watson fails to teach applying an electroplating layer containing nickel.

However, Oshima teaching of an electroplating bath, discloses a zinc-nickel alloy electroplated layer on metallic articles is known in the art to improve the corrosion resistance properties (Column 1, lines 19-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Watson to use the zinc-nickel electroplated layer as suggested by Oshima to provide a desirable corrosion resistant coating on a metallic article because Oshima discloses zinc-nickel alloy electroplated layer on metallic articles is known in the art to improve the corrosion resistance properties and therefore would reasonably be expected to effectively provide corrosion resistance for equipment parts.

Watson in view of Oshima fails to teach of a preparing the tool service area. The admitted state of the art as taught from the applicants description teaches that the "typical plating process consists of preparation of the item to be plated" which may include one or more of cleaning, grinding, stripping, polishing, blasting, and baking (Background of Invention, pg 2, lines 7-20).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to include a preparation step before plating including such steps as cleaning and abrading the tool service area with the expectation it helps improve adhesion of layer.

Claims 4-6 and 8, Watson in view of Oshima is discussed above. Watson in view of Oshima fails to teach of a transitional finishing step at the end of the plating process.

The admitted state of the art as taught from the applicants description teaches that

typical plating is post-plate finished which may include one or more of cleaning, grinding, polishing, super-finishing, blasting, baking, and inspection (Background of Invention, pg 2, lines 7-20).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to include a transitional finishing step including abrading, baking and a transitional evaluating step.

Claims 7 and 11, Watson in view of Oshima is discussed above. Watson in view of Oshima fails to teach of subsequent plating step or a subsequent spraying step.

It is the examiners position that it would have been obvious to one skilled in the art at the time of the invention to apply multiple plating or spraying layer with the expectation of creating a thicker coating to, provide a more durable coating and meet any thickness requirements. Additionally, the admitted state of the art teaches that multiple layers of spray coating may be applied to create a desired thickness (Background of Invention, pg 3 lines 16-18).

Claims 9, 10, and 12-16, Watson in view of Oshima is discussed above. Watson in view of Oshima fails to teach of finishing steps at the end of the spraying process.



Art Unit: 1762

The admitted state of the art as taught from the applicants description teaches that typical spraying is post-spray finished with one or more of cleaning, grinding, polishing, super-finishing, blasting, baking, and inspection (Background of Invention, pg 2 lines 21-23, pg 3 lines 1-18).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to include a conventional transitional finishing step including abrading, baking and inspecting the layer. Additionally, it would have been obvious to one skilled in the art at the time of the invention to include a finishing step after the spraying step that includes cleaning, polishing, and evaluating.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Turocy  
AU 1762



**TIMOTHY MEEKS**  
**SUPERVISORY PATENT EXAMINER**